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INFECTIOUS DISORDERS

LONG-TERM OUTCOME OF LYME NEUROBORRELIOSIS

Researchers at Falun General Hospital and other centers in Sweden determined the long-term neurologic outcome of 84 children with confirmed Lyme neuroborreliosis (LNB). A neurologic re-examination at a mean age of 13 years and a median follow-up of 5 years after diagnosis found a total recovery rate of 73% (n=61). None had progressive neurologic symptoms. Definite sequelae (objective neurologic findings) were found in 16 (19%) patients, and possible sequelae (nonspecific signs related in time with LNB diagnosis) in 7 (8%). Sequelae were motor in 8 patients, sensory in 8, and both motor and sensory in 7. Eleven (21%) of 53 patients with acute facial nerve palsy at diagnosis had moderate persistent facial palsy at follow-up. Persistent neuropathy was diagnosed in 1 patient, trigeminal neuropathy in 1, hemiparesis following an LNB stroke in 1, polyneuropathy in 1, and peroneal nerve palsy in 1. Romberg test was positive in 3 patients, and vertigo occurred in 1. Fine motor incoordination with dysgraphia was diagnosed in 3. Possible sequelae in 7 patients included paresthesia, pain, and imbalance. Impaired school performance and daily activities affected 37% of children with definite sequelae, 57% of the possible sequelae group, and 15% of the no sequelae group. Nonspecific subjective symptoms, including headache, fatigue, and memory or concentration difficulties, were similar in the 3 patient groups and a control group of 84 children. Age, gender, duration of symptoms at diagnosis, and antibiotic treatment did not differ significantly in patients with or without sequelae. (Skogman BH, Glimaker K, Nordwall M, Vrethem M, Odkvist L, Forsberg P. Long-term clinical outcome after Lyme neuroborreliosis in childhood. **Pediatrics** 2012 Aug;130(2):262-9). (Respond: Barbro H Skogman MD PhD, Center for Clinical Research in Dalarna (CKF), Nissersv 3, SE-791 82 Falun, Sweden. E-mail: barbro.hedinskogman@itdalarna.se).

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COMMENT. Acute facial nerve palsy is a common symptom of LNB, and a significant number (21%) will persist at follow-up. In a previous study of long-term outcome (3-5 years) of facial palsy in LNB, one-half of patients with subjective symptoms of residual facial palsy had signs of mild to moderate dysfunction on clinical examination, III-IV on the House-Brackman grading scale (I normal-VI no movement). (Bagger-Sjoback D et al. **Otol Neurotol** 2005 Jul;26(4):790-5). Subjective symptoms, objective signs, and neurophysiological test results show no clear correlation.

Since LNB is amenable to antibiotic treatment, a high index of suspicion and early diagnosis of acute neurologic complications is important. Examples of more common neurologic manifestations include, in addition to facial palsy, lymphocytic meningitis, mononeuropathy multiplex, and painful radiculoneuritis. (Halperin JJ. **Curr Infect Dis Rep** 2011 Aug;13(4):360-6).

SPINAL TUBERCULOSIS (POTT'S DISEASE)

Researchers at Great Ormond Street Hospital for Children and Institute of Child Health, London, UK reviewed their experience of childhood spinal tuberculosis (TB) over a 15-year period (1995-2010). Of 21 patients identified (median age 9.7 years, range 3.4-15.9 years) 11 were Black African, 7 Asian, 2 Middle Eastern and 1 Caucasian. Nine were born in the UK, 1 in the Netherlands and the remainder outside Europe. Ten had traveled to a country endemic for TB within the year before diagnosis. Four (19%) had a previous diagnosis of TB, 11 (52%) a known contact, 10 (48%) had received BCG vaccine and none was HIV-positive. Clinical presentations included systemic symptoms in 18 (night sweats, weight loss, fever and anorexia), back pain in 16, neurological symptoms in 12 (weakness and limp in 7, sensory change in 5), and spinal deformity in 5. *Mycobacterium tuberculosis* was isolated in 14 patients (67%) by vertebral biopsy or from paraspinal abscess. Spinal cord compression or stenosis occurred in 8 (38%), vertebral collapse in 13 (62%), and paraspinal abscess in 15 (71%). Chest x-ray showed TB lung disease in 8 patients (38%). Extra-spinal disease was co-existent in 12 (57%) patients, including psoas abscess in 5 (24%). All patients received TB treatment for at least 12 months, 7 underwent surgery, and 75% resolved fully. All patients were alive and without neurologic deficit at a median follow-up of 24 months. (Eisen S, Honywood L, Shingadia D, Novelli V. Spinal tuberculosis in children. **Arch Dis Child** 2012 Aug;97(8):724-9). (Respond: Dr Sarah Eisen, Department of Infectious Diseases and Microbiology, Institute of Child Health, 30 Guildford St, London WC1N 1EH, UK. E-mail: saraheisen@hotmail.com).

COMMENT. The authors list key features that should alert the clinician to a diagnosis of spinal TB: TB contact or travel to endemic area, history of previous TB, systemic symptoms, back pain and long duration of symptoms. Treatment should be supervised closely and prolonged. Late onset paraplegia, a feature of Pott's disease, was not a complication in the authors' cases. In a series of 8 patients with late onset Pott's paraplegia due to kyphosis, this complication was treated successfully with decompression and grafting. A mean period of 24 years (range, 9-46 years) had elapsed from the onset of active disease and the age at neurological deterioration. (Bilsel N, et al. **Spinal Cord** 2000 Nov;38(11):669-74). This report re-emphasizes the need for long-